# Report on Bachelor Thesis

**Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague**

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|---|---|
| **Student:** | **Jan Ježek** |
| **Advisor:** | **Vilém Semerák, Ph.D.** |
| **Title of the thesis:** | **Exchange Rate Volatility and Trade: Trade in Intermediates versus Trade in Final Products** |

***OVERALL ASSESSMENT*** *(provided in English, Czech, or Slovak):*

*Please provide your assessment of each of the following four categories, summary and suggested questions for the discussion. The minimum length of the report is 300 words.*

**Contribution**
While the paper focuses on a well-researched area (tests of effects of exchange rate volatility on international trade flows), it does so in novel way which differentiates between trade in intermediates and trade in final goods and which relies on a less usual source of data (at least from the perspective of gravity models): the World Input-Output Database. This makes this paper quite innovative relative to many other undergraduate papers. The author also opted for a more complicated approach to measuring volatility, he used indicators calculated from daily exchange rates.

The estimated results look plausible and can be considered an interesting contribution to the debate about effects of exchange rate volatility.

**Methods**
The paper relies on gravity models which is a standard and respected methodology for this kind of empirical analysis. The author is clearly aware of methodological problems of older "empirical" gravity models and discusses the microfoundations and especially the features of the multilateral trade resistance (MTR) in detail. Not only this, he also explicitly attempts to use newer forms of estimators, esp. the "Bonus Vetus" estimator proposed by Baier and Bergstrand in order to deal with the MTR.

The paper uses a narrower and shorter sample than samples used in many recent applications of gravity models. However, this was caused by the attempt to use a highly specific source, the data from the World Input Output Database.

The results do not explicitly mention whether robust standard errors (e.g. clustered) were used. It seems that they were not and it would have been interesting to test whether the influence of volatility remains significant. When describing the result, the author simply compares the estimated coefficients, however, he does not discuss whether the difference between the estimated coefficients is indeed statistically significant.

The description of methods typically applied on gravity models distorts the importance of the PPML estimator, the use of which is recommended not just because of zero trade flows. In fact, it might have been useful to attempt to use this estimator too.

**Literature**
The author provides brief but clear outline of gravity models and of the attempts to explain and analyze the effects of volatility on trade.

However, some omissions can be found in the literature review too:

1. While the author discusses the Rose effect in detail, but strangely enough, he did not include a very relevant paper by Havránek (Rose Effect and the Euro: Is the Magic Gone?) amongst the discussed papers, in spite of the fact that he was familiar with the paper and even mentioned the paper in the thesis proposal.

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2. The literature review mentions only one paper which attempted the tests on intermediates and final products, a paper by Johannsen & Martinéz-Zarzoso. As it is the only paper in the literature review which analyzes the same topic as the author, I would have expected its methodology and data be discussed in more detail. In fact, no such details are provided. Moreover, the reference of the paper is incomplete. It is true that the paper was published as a chapter in a book (which might have contributed to this result), however, even the title of the paper seems to be cited incorrectly.
3. Another small mistake appears in the list of references – the paper Santos Silva & Tenreyro (2006) is referred to as Silva & Tenreyro (2006). However, this form of abbreviation can often be found in informal discussions about this influential paper.

**Manuscript form**

The text as well as regression output, charts, bibliography and other additional materials are neatly formatted thanks to the fact that the author relied on Latex-based solution. However, the overall impression is ruined by many typos, errors, incosistent capitalization, and even unfinished sentences (p. 25) or strange codes left in the text (p. 21).

There is an interesting inconsistency between Figure 3.2 (p. 15) which shows a negative trade shock in 2009 and the description of the chart on p. 16 which mentions a drop in 2007. Similarly, the author mentions that the sample covers 43 countries (p. 14), but the Table A.1 (p. I-II) only includes 42. So – was China included in the sample or not?

The author definitely should have dedicated some extra time to final proofreading and to checking the continuity and consistency of the text.

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**Summary and suggested questions for the discussion during the defense**

The author definitely submitted an interesting thesis and proved that he can work independently. The proposed grade would be higher if the language issues and other similar omissions had been dealt with.

**Questions**:

1. Please compare the data and methodology used in Johannsen & Martinéz-Zarzoso (2017) with your data and results.
2. Why do recent estimates of gravity models often rely on the PPML estimator?

***SUMMARY OF POINTS AWARDED*** *(for details, see below):*

| **CATEGORY** | | **POINTS** |
|---|---|---|
| *Contribution* | *(max. 30 points)* | 27 |
| *Methods* | *(max. 30 points)* | 28 |
| *Literature* | *(max. 20 points)* | 17 |
| *Manuscript Form* | *(max. 20 points)* | 13 |
| **TOTAL POINTS** | *(max. 100 points)* | **85** |
| **GRADE** | **(A – B – C – D – E – F)** | **B** |

***NAME OF THE REFEREE:*** ***Vilém Semerák***

***DATE OF EVALUATION:*** ***August 26th, 2019***

***Referee Signature***

***EXPLANATION OF CATEGORIES AND SCALE:***

***CONTRIBUTION:*** *The author presents original ideas on the topic demonstrating critical thinking and ability to draw conclusions based on the knowledge of relevant theory and empirics. There is a distinct value added of the thesis.*

| *Strong* | *Average* | *Weak* |
|---|---|---|
| *30* | *15* | *0* |

***METHODS:*** *The tools used are relevant to the research question being investigated, and adequate to the author's level of studies. The thesis topic is comprehensively analyzed.*

| *Strong* | *Average* | *Weak* |
|---|---|---|
| *30* | *15* | *0* |

***LITERATURE REVIEW:*** *The thesis demonstrates author's full understanding and command of recent literature. The author quotes relevant literature in a proper way.*

| *Strong* | *Average* | *Weak* |
|---|---|---|
| *20* | *10* | *0* |

***MANUSCRIPT FORM:*** *The thesis is well structured. The student uses appropriate language and style, including academic format for graphs and tables. The text effectively refers to graphs and tables and disposes with a complete bibliography.*

| *Strong* | *Average* | *Weak* |
|---|---|---|
| *20* | *10* | *0* |

***Overall grading:***

| TOTAL | **GRADE** |
|---|---|
| 91 – 100 | **A** |
| 81 - 90 | **B** |
| 71 - 80 | **C** |
| 61 – 70 | **D** |
| 51 – 60 | **E** |
| 0 – 50 | **F** |